





## HT824 - Process Calibrator

HT824 multifunctional process calibrator has high accuracy, high stability, can be widely used in site calibration of industry instruments and equipment in laboratory. Powerful functions, it can simulate to output voltage in millivolt and volt, current in milliampere, and many types of electric signals needed by the measurement and control during industry control process. It can also test or simulate kinds of TC and RTD signals.

Model	HT824		
DC Voltage Measurement			
Range	0-30.000V (Upper part of screen) *1	0-24.000V (Bottom of screen) *2	0-90.000mV
Resolution	0.001V	0.001V	0.001mV
Accuracy	0.1%+5	0.05%+5	0.05%+5
*1 and *2: Input resistance is greater than 1MΩ			
DC Voltage Output			
Range	0—20.000V	0—90.000mV	
Resolution	0.001V	0.001mV	
Accuracy	0.05%+5	0.05%+5	
Millivolt measurement and output*1			
Range	-10.000mV—80.000mV		
Resolution	0.001mV		
Accuracy	0.05%+5		
*1 Press TC(16) to select this function. Signal is at thermocouple micro input/output TC port.			
DC Current (milliampere) Measurement			
Range	0—24.000mA (Upper part of screen) *1	0—24.000mA (Bottom of screen) *2	
Resolution	0.001mA	0.001mA	
Accuracy	0.05%+5	0.05%+5	
DC Current (milliampere) Output			
Range	0—24.000mA		
Resolution	0.001mA		
Accuracy	0.05%+5		
SIMU (Simulation) When outputting current, external voltage is greater than 12V, less than 28V.			
SOUR (Source) When outputting current, signal driving ability is 1000Ω in 20mA.			
Resistance Measurement			
Ohm Range		0—400.00Ω	400.0—4000.0Ω
Accuracy ±Ω	4 Wire (4W)	0.02%+5	0.02%+5

	2 Wire (2W) and 3 Wire (3W)	0.05%+5	0.05%+5	
Excitation current : 0.2mA。				
Maximum input voltage : 30V。				
2 Wire: Do not include wire resistance.				
3 Wire: Assume to use the matched testing wire, the total resistance cannot be greater than 100Ω.				
Resistance output				
Range	5.00Ω—400.00Ω		400.0—1500.0Ω	
Excitation current from the measurement instrument	0.15mA-2mA		0.05mA-0.8mA	
Accuracy ±Ω	0.05%+5		0.05%+5	
Resolution	0.1Ω		0.1Ω	
Temperature - Thermocouple				
Type	Range	Resolution	Measurement and output accuracy ±°C	
S	-50.0°C to 0°C	0.1°C/0.1°F	2°C	
	0°C to 500.0°C	0.1°C/0.1°F	1.5°C	
	500.0°C to 1760.0°C	0.1°C/0.1°F	1.3°C	
R	-50.0°C to 0°C	0.1°C/0.1°F	2°C	
	0°C to 500.0°C	0.1°C/0.1°F	1.5°C	
	500.0°C to 1760.0°C	0.1°C/0.1°F	1.3°C	
B	200°C to 800°C	1°C/1°F	2.5°C	
	800°C to 1800°C	1°C/1°F	2.3°C	
K	-200.0°C to 1370.0°C	0.1°C/0.1°F	1.3°C	
N	-200.0°C to 1300.0°C	0.1°C/0.1°F	1.3°C	
E	-200.0°C to 1000.0°C	0.1°C/0.1°F	1°C	
J	-200.0°C to 1200.0°C	0.1°C/0.1°F	1°C	
T	-200.0°C to 400.0°C	0.1°C/0.1°F	1°C	
Thermocouple adopts ITS-90				
If open cold junction compensation, there should be additional ±0.5°C				
Temperature – Thermal resistance				
Type	Range	Accuracy ±°C		
		Testing 4 wire °C	Testing 2 wire and 3 wire °C	Output °C
Pt100-385	-200.0°C-850.0°C	0.8°C	1°C	0.8°C
Pt100-3926	-200.0°C-850.0°C	0.8°C	1°C	0.8°C
Pt100-JIS	-200.0°C-850.0°C	0.8°C	1°C	0.8°C
Pt200-385	-200.0°C-250.0°C	0.7°C	0.8°C	0.7°C
	250.0°C-630.0°C	1.3°C	2.1°C	1.3°C

Pt500-385	-200.0°C-500.0°C	0.8°C	1.1°C	0.8°C
	500.0°C—630.0°C	1°C	1.5°C	1°C
Pt1000-385	-200.0°C-100.0°C	0.7°C	0.7°C	0.8°C
	100.0°C-630.0°C	0.7°C	0.8°C	0.8°C
Cu100	-50.0°C-150.0°C	1°C	1.2°C	1°C
Cu50	-50.0°C-150.0°C	1°C	1.2°C	1°C
Resolution: 0.1°C, 0.1°F				
Allowable excitation current(output): Pt100-385, Pt100-392, Pt100-JIS, Pt200-385:0.15 to 3.0 mA				
Pt500-385:0.05 to 0.80mA;Pt1000-385:0.05 to 0.40mA				
2 Wire: Do not include wire resistance.				
3 Wire: Assume to use the matched testing wire, the total resistance cannot be greater than 100Ω.				
Comprehensive Index				
Operation temperature	0°C to 50°C			
Storage temperature	-20°C to 70°C			
Operation height	Average elevation 3000 meters below.			
Relative humidity (No condensation relative work humidity %)	75%(30°C to 40°C)			
	45%(40°C to 50°C)			
	35%(50°C to 55°C)			
	<10°C, no control			
Stability	Out of the range 23±5°C, each degree increase ±0.005% of the range.			
Vibration	The random vibration, 2g,5 to 500Hz			
Security	EN 61010-1:1992			
Protection Level	Pollution grade II			